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*Nutrition*



# Food Primer

## For the Home

Compiled by  
**LUCY H. GILLETT**

*Food Specialist*

BUREAU OF FOOD SUPPLY, A. I. C. P.  
105 E. 22ND ST., NEW YORK



The contents of this book, based upon the results of three years' research and experiment, reduce the food problem to simple graphic terms so that it can be easily understood by everyone capable of reading, and may be applied in the interest of the best health of the family. Thanks are due to MRS. ELIZABETH MILBANK ANDERSON who has made this publication possible.



*Health is a National Obligation.*

*Good Food Habits are Necessary for Health.*

## What are good food habits?

Good food habits are:  
the eating of the right kinds of food  
the eating of the right amount of food  
the eating of this food at the right time and in the proper manner.

## At what age should good food habits be started?

The nursing baby should be taught the first good food habit of eating regularly and at stated times.

Other good food habits should be started as soon as the child begins to eat solid food.

Children may be taught to like almost any food, but it is very hard for many adults to learn to like new foods.

It is a waste of time and energy to try to break bad habits when good habits might have been started in their places.

## How can you teach a child to like any food?

Be patient but persistent—persuade rather than force.

Do not give up—to give up or to give in may spoil the child's health.

Do not get something in place of what the child refuses to eat.

Introduce new foods gradually.

Serve only a small amount of each new food at a time (1-2 teaspoonsful)—serve it frequently until he acquires a liking for it.

Make the food as attractive as possible, and prepare in a variety of ways.

Serve cereal in an attractive dish.

Put cooked dried fruit in the cereal.

Conceal spinach in scrambled egg.

Add vegetable pulp to white sauce and pour over toast.

It may take two years to teach a child to like vegetables, but two years spent educating a child to eat the right foods are better spent than from 2 to 20 years or more of misery with only half working ability.



# Be Strong and Healthy

## Good Food Habits are Essential to Health

Drink at least two cups of milk every day.

Eat freely of Bread or Cereal at every meal.

Eat some Vegetable every day.

Do not eat Sweets except at the end of a meal.

Drink at least six cups of Water every day.

Do not drink Coffee or Tea at all.

Eat regularly, three times a day.

Do not eat between meals—except an occasional light  
luncheon half way between two hearty meals.

Eat slowly—chew food thoroughly.

FOOD CHART No. 1

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IT has been found through a study of food habits that these suggestions are in accordance with economy where economy is important. But where money is no consideration, they are quite in accordance with the best laws of health. The fundamental principles are the same. They differ chiefly in the types of vegetables and fruits used according to the amount of economy necessary. It is important at this particular time of food conservation that everyone know relative food values so as to know how to substitute for the meat and wheat which we want to conserve.



*Give the children the proper start in life.  
Give them the right kind of food.*

### **Why does James look so sure of winning?**

James has the assurance of winning because he has good solid bones, firm muscles, a strong vigorous heart and steady nerves.

### **How has he acquired these good qualities?**

He eats three hearty meals a day—seldom between meals, except an occasional light luncheon half way between two hearty meals.

He eats cereal and milk every morning for breakfast.

He never drinks coffee.

He eats plenty of coarse breads, vegetables and milk.

He eats comparatively little meat or sugar. He eats sweets only at the end of a meal.

He chews his food thoroughly.

### **Why does William look so pathetic?**

William is beginning to feel that he is not strong enough to play as hard as the other boys. He feels tired sooner than they do and often can't play at all. He has a cold frequently.

### **Is there any reason for William's lack of energy?**

William eats bread and coffee for breakfast. His mother thinks it takes too long to cook the cereal. His breakfast furnishes only about half as much food value as James' breakfast.

He eats a bite here and a bite there throughout the day. He has no regular eating times. He eats anything he happens to see which appeals to him. He eats it hurriedly too.

He eats a great deal of white bread, meat and coffee with lots of sugar in it.

It is not a difference in cost. The chances are that William's food costs more than James'.

### **What are William's chances of success in life?**

The chances are that he won't get along as well at school, that he won't be able to work as hard, that he will be more susceptible to disease, and that he may be unable to earn his living because of tuberculosis or some other wasting disease.

James' breakfast of oatmeal and milk costs no more than William's breakfast of bread and coffee, but it supplies about twice as much growing material.

# THE RACE FOR LIFE



WILLIAM



JAMES

AMOUNT OF GROWING MATERIAL NEEDED BY WILLIAM EVERY DAY



2000 Food Units

GROWING MATERIAL SUPPLIED BY WILLIAM'S BREAKFAST



350 Food Units

AMOUNT OF GROWING MATERIAL NEEDED BY JAMES EVERY DAY



2000 Food Units

**JAMES and WILLIAM** have a race to run. Both want to be strong, healthy men. Both must gain from 5 to 6 pounds a year (1½ to 2 oz. a week, or from 6 to 8 oz. a month). The food must supply all of this as well as the energy used in work and play.

William is getting only about one-half as much from his breakfast of bread and coffee as James gets from his cereal and milk. He is thereby lessening his chances for a healthy manhood.

(Both breakfasts cost practically the same amount.)

GROWING MATERIAL SUPPLIED BY JAMES' BREAKFAST



650 Food Units

FOOD CHART No. II

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**JAMES and WILLIAM** have a race to run. Both want to be strong, healthy men. Both must gain from 5 to 6 pounds a year (1½ to 2 oz. a week, or from 6 to 8 oz. a month). The food must supply all of this as well as the energy used in work and play.

William is getting only about one-half as much from his breakfast of bread and coffee as James gets from his cereal and milk. He is thereby lessening his chances for a healthy manhood.

(Both breakfasts cost practically the same amount.)



*Give the children plenty of milk and watch them grow.*

**What everyday proof have we that milk has good growing material for boys and girls?**

It is the only food the majority of children get for the first nine months of their lives, yet they live on it, they grow on it, they do their work of playing, kicking, and crying on it.

**What does milk supply?**

It supplies building material for the bones, teeth, and muscles, it keeps the heart beating regularly, it strengthens the nerves and every other part of the body. It has a growing force which makes weak bodies grow into strong ones.

**Would any other food do as well?**

No other food could be used in its place.

No other one food contains as many of the various growing materials needed by children.

No other one food supplies enough building material for bones and teeth. Good bones and teeth need lime for building.

Children need a variety of growing materials and they must all be supplied if every child is to be a strong, healthy man or woman.

**How much milk should children have?**

Every child must have at least one pint of milk a day to supply material for good bones and teeth.

Every child ought to have at least one quart of milk a day because it is so easily built up into body tissue.

**What is its value for adults?**

It is an excellent food for adults. It might take the place of some meat.

At least a cup of milk per adult per day should be used in the food or taken as a beverage.

The food value of the milk is the same whether the milk is taken in cooked foods or as a beverage.

**What is the food value of coffee or tea?**

Coffee and tea have no food value.

**Are they harmful?**

They are harmful for growing children because they dull the appetite so that the children **feel** satisfied before all the necessary growing material has been supplied.

# Milk as Compared with Tea or Coffee as Food

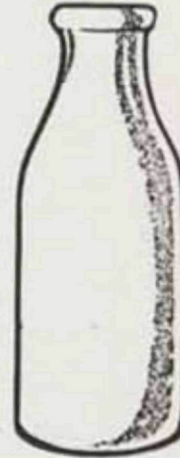
**M**ILK is the best food for growing children. It contains all the food material needed for growing bones and muscles. Every child should have at least two big cups of milk a day. Milk combined with bread, cereals, and vegetables should be the main part of the diet of boys and girls.

Tea and coffee take away the appetite for the things which make children grow. Tea and coffee may satisfy the longing for food, but they do not provide any of the things which the body must have in order that it may grow strong and healthy.

(If milk and sugar are used in the tea or coffee, some food value would be received, but the coffee and tea are not good for growing muscles and nerves.)

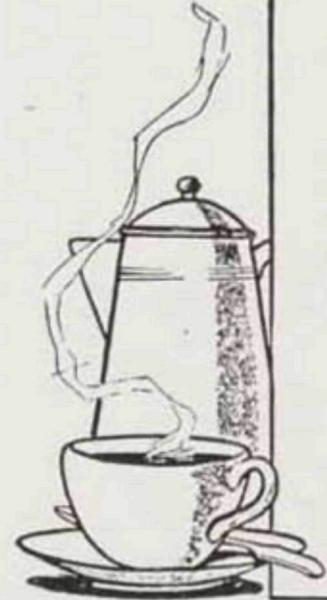


■ GROWING MATERIAL  
NEEDED BY A GIRL  
EIGHT YEARS OLD



■ GROWING MATERIAL  
SUPPLIED BY ONE  
QUART OF MILK

□ GROWING MATERIAL  
TO BE SUPPLIED BY  
OTHER FOOD



NO GROWING MATERIAL  
SUPPLIED BY TEA OR  
COFFEE

□ GROWING MATERIAL  
TO BE SUPPLIED BY  
OTHER FOOD

FOOD CHART No. III

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## Are dried fruits and vegetables better than canned ones?

No, dried fruits and vegetables are advocated only where economy is necessary.

If you have only 18 cents to spend for a vegetable or a fruit, you can get more food value from 18 cents' worth of dried peaches than from 18 cents' worth of canned peaches, because you pay for water when buying the canned which might be added at home.

If it is a matter of getting more food value for the money, then dried fruits and vegetables would be recommended above canned in general. Use some fresh vegetables occasionally however.

Home canned fruits and vegetables are always to be preferred to purchased dried vegetables.

## How about the material required in the preparation of the dried fruits?

While extra material used in the preparation should be considered, the food value will be increased much more in proportion than the cost. Sugar added to dried fruit at home costs not more than 10 cents a pound. The sugar in canned peaches has been paid for at the rate of at least 25 cents a pound.

The following illustrates the cost and number of servings from a pound of canned peaches and dried peaches:

	Food Value Calories	Cost <sup>1</sup> (Cents)	Servings	Cost of One Serving (Cents)
1 pound can of peaches.....	213	12	$2\frac{2}{3}$ <sup>2</sup>	$4\frac{1}{2}$
1 pound of dried peaches.....	1,280	18	12	$1\frac{1}{2}$

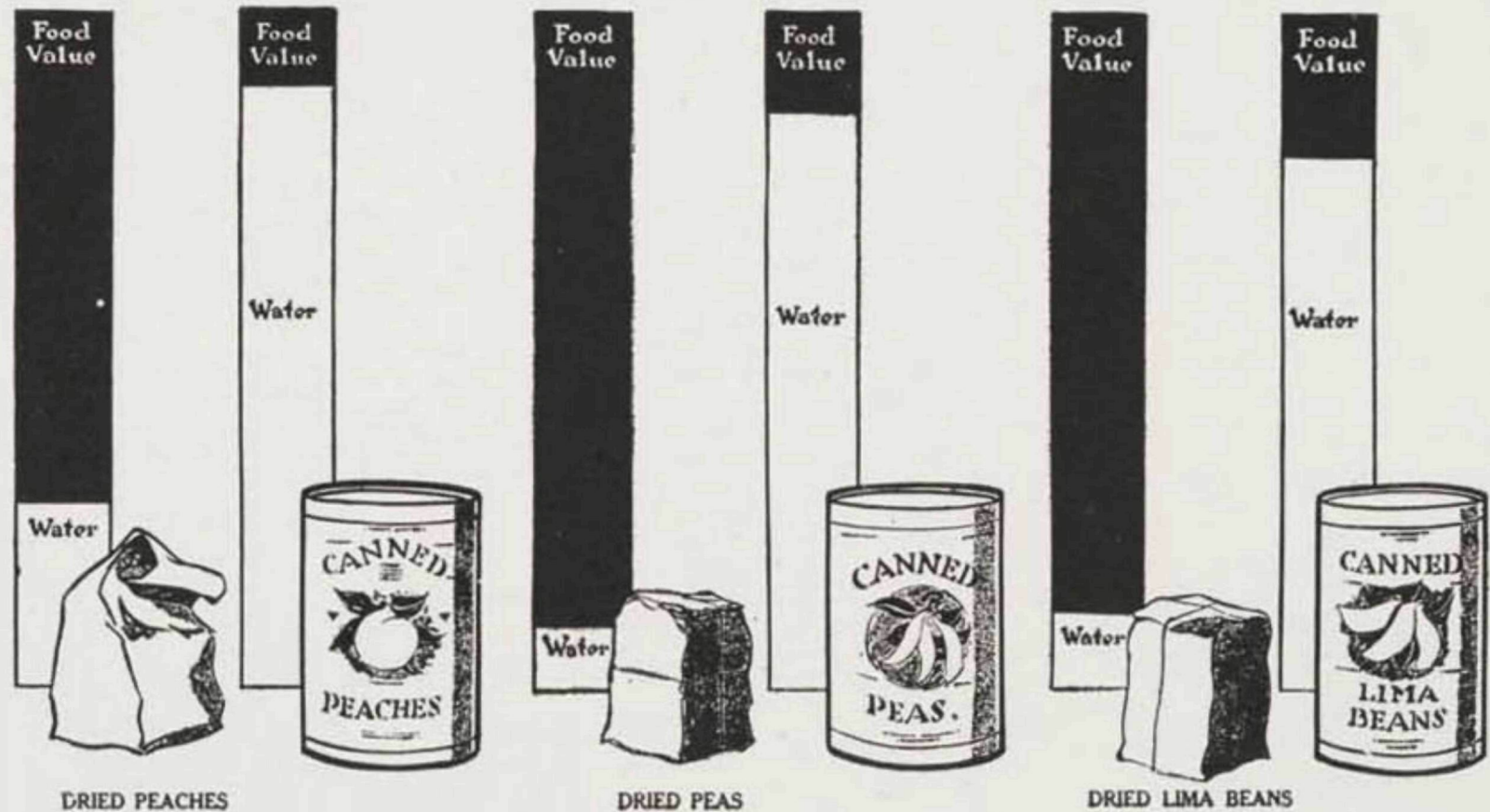
If one were to add even one cup of sugar to the pound of dried fruit in cooking, there would be added 900 calories to its food value at a cost of one-half pound of sugar. If this is five cents then the food value and cost of each serving would be as follows:

	Food Value	Cost
Canned peaches .....	80 calories	$4\frac{1}{2}$ cents
Dried peaches .....	148 calories	$1\frac{11}{12}$ cents

<sup>1</sup>Costs are only approximate.

<sup>2</sup>Only 8 half peaches were contained in a pound can—enough to serve only 2 people, with  $\frac{2}{3}$  of a serving for a third person.

## COMPARATIVE FOOD VALUE OF DRIED AND CANNED VEGETABLES AND FRUITS



When you buy canned vegetables and fruits you pay for water which might be added at home for much less money.

FOOD CHART No. IV

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*Use more milk and less meat.*

*The chief danger in going without meat is in not making the proper substitutes.*

### **Is meat necessary every day?**

Meat is not necessary every day.

Some people get along very well without any meat at all.

### **Why do some people think they need meat every day?**

Some people think they need meat every day because they are accustomed to it. They were not properly taught as children.

Meat has a stimulating quality. This stimulating quality often makes some people feel that they need more meat than is really good for them.

### **What can be substituted for meat?**

Milk, eggs, cheese, plenty of vegetables (especially beans and peas), fish, and more cereals.

### **How may the meat be reduced and yet make meals appetizing?**

Use meat for flavor and use it in such a way as to make a small amount go a long way.

Use less meat and more vegetables and cereals (rice, barley and oatmeal) in soups and stews.

Cook a small amount of chopped meat with a large amount of cooked rice or barley. Season with onion or other vegetable.

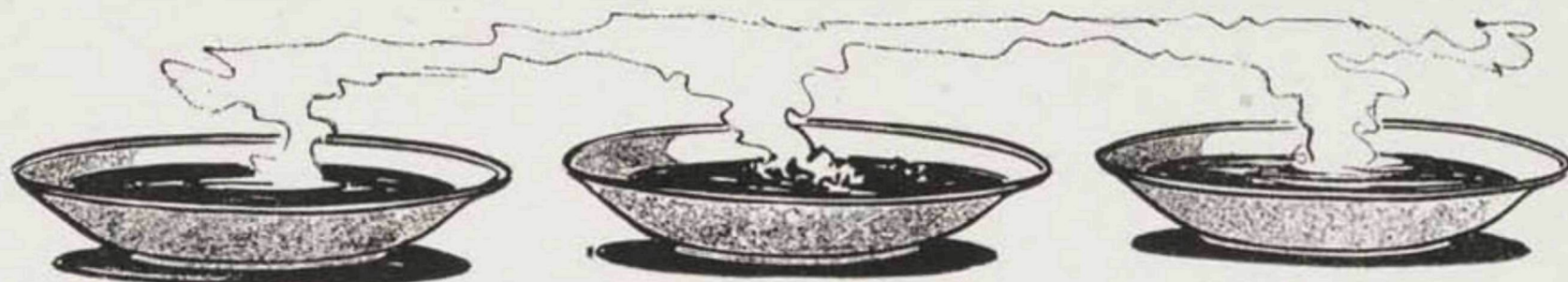
The water in which pared vegetables and rice are cooked should be used in soups and gravies so far as possible. This water contains valuable food material which should be used. It may be just what you need.

The clearer the soup, the lower its food value. In clearing soup stock, valuable food material is removed. It would be better for both children and adults to sacrifice appearance to food value. The brown flakes removed in clearing soup are real food.

In meat stew, we have more food value than in the clear soup because here are the vegetables needed by everyone—both young and old—with some meat in addition. Even the water in which the vegetables have been cooked is used. This ought always to be saved, otherwise some of the food value of the vegetable is thrown away with the water. A stew may also be used as a means of saving left-over vegetables.

When milk is added to a vegetable and the water in which it has been cooked, we have the most nourishing soup of all. A vegetable soup made with milk and eaten with bread is a complete and well-balanced meal in itself. It is good for both children and adults.

# Relative Food Values



CLEAR SOUP

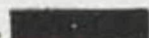
MEAT STEW WITH  
VEGETABLES

BEAN SOUP WITH MILK

## The Relative Food Value

OF  
CLEAR SOUP,  
MEAT STEW,  
AND  
BEAN SOUP

30  
Calories



250  
Calories



400  
Calories



**Make That Soup a Worthwhile Dish by Using Plenty of Milk and Vegetables**

FOOD CHART No. V

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*Use plenty of milk, vegetables, and cereals,  
and make sure that all building stones are supplied.*

### What is meant by "building stones"?

The building stones of the body are the various materials which go to make up the bones, muscles, teeth, nerves, and all other parts of the body. Fats, sugars, proteins, lime, and iron are among the most important.

### Does any one food contain them all?

Milk contains all building or growing materials. No other one food contains them all. We must eat a variety of foods to get what we need.

### Is appetite a good guide?

There are very few wise and intelligent appetites. Taste is too depraved to trust as a guide. The chances are that we would be getting far more than we needed of some material and not enough of others. This is a waste of food.

### How then can one be sure of securing a proper balance?

- 1—There should be at least 1 qt. of milk for every two or three people over five years of age (1 qt. for every child under five).
- 2—There should be plenty of bread or cereal and milk for breakfast with fruit if possible. If people are working hard other things may be added.
- 3—The main dish at one other meal should consist of one or more vegetables with milk and bread or cereals.
- 4—The third meal should have as its main dish meat or meat substitute prepared with plenty of vegetables.
- 5—There should be plenty of milk, vegetables and cereals in every diet.

If these foods are made the important items in the diet the sugar may be reduced to a minimum. It should never be allowed between meals or at the beginning of a meal as it destroys the appetite for the foods needed. Learn to eat cereal without sugar. Whatever sugar is given should be given at the end of the meal. It contains no iron and is likely to lessen the eating of iron foods. Iron foods are very necessary.

There should be a reasonable amount of fat in every diet. Cheaper fats and oils may be used in place of butter provided there are plenty of milk and green vegetables.

## Boys and Girls Need Many Kinds of "Building Stones" to Grow Vigor- ously

**C**HILDREN grow best when fed on those foods which supply the best building stones most abundantly.

It is not possible to tell by looking at a food what its good qualities are, but you can get a very good idea of the relative value of foods by comparing the length of the lines on the chart.

Milk, bread and cereals are very valuable foods, and should form the bulk of the diet of every growing boy or girl. Boys and girls also need some vegetable every day.

(The value of these foods has been worked out on the basis of a score card. Energy has been given a value of 40 on the scale of 100. Protein, Calcium, Iron, and Phosphorus, each 15. Sherman and Gillett.)

## Some Foods Supply Building Stones More Economically than Others

The length of the line opposite the food given below indicates the return in food value for the money spent

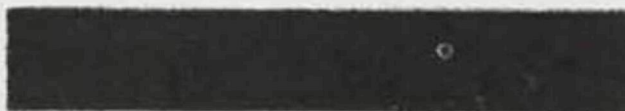
Milk or Cheese



Bread, Cereals,  
Macaroni, or Rice



Vegetables



Meat, Eggs or Nuts



FOOD CHART No. VI

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*The more grain products used the cheaper the diet.*  
*The more meat used, the more expensive the diet.*

### What are grain products?

The grain products include bread flours, cereals, macaroni, rice, barley, cornmeal and other similar products made from grain.

### What makes the food value of oatmeal so much higher than white flour, as shown on the chart opposite?

The chief difference in the food value of these two grain products is the difference in the amount of the grain which is used in the preparation of the product. In oatmeal the outside coating of the grain is left in the cereal. This contains valuable material. It increases the value of the oatmeal as a food. In white flour the grain coating has been carefully removed. Its food value is thereby decidedly decreased.

### Is white flour necessary?

White flour is not necessary even for children. In fact, we would all be better or just as well, if we ate more of the grain products other than white flour. White flour has been deprived of valuable building material. It has less lime and iron than whole wheat or oatmeal. Both adults and children need this lime and iron. The coarser flours and cereals are more laxative and help to prevent constipation. Constipation leads to many ills.

### How can one judge the relative economy of the various cereals?

Divide the score for the food value per pound by the cost as follows:

	Score for food value per pound	Cost per pound	Return in food value for every cent spent
Oatmeal .....	2,460	7 cents	351
Shredded wheat .....	2,200	16 "	138
Barley .....	1,380	8 "	172
Wheat flour .....	1,180	8 "	148

### What about nuts?

The food value of nuts is high. The use of nuts may reduce the use of meat considerably. If nuts are eaten even as a relish, less meat may be served for the main dish. If plenty of vegetables are served, meat may be omitted entirely.

Nuts need to be masticated thoroughly however. Peanut butter sandwiches and potato soup make an excellent luncheon for a boy.

# GRAIN PRODUCTS and NUTS

(FOOD VALUE PER POUND)

## GRAIN PRODUCTS

OATMEAL

Food Value  
2460

ANY CEREAL or FLOUR  
Made from the  
WHOLE WHEAT  
such as Wheatena, Shredded  
Wheat, or Graham Flour

Food Value  
2200

BARLEY, FARINA,  
MACARONI or  
CORNMEAL

Food Value  
1380

HOMINY, WHITE  
FLOUR or WHITE  
RICE

Food Value  
1180

## NUTS

ALMONDS, PEANUTS  
or PEANUT BUTTER

Food Value  
2060

FILBERTS

Food Value  
1750

PECANS

Food Value  
1440

WALNUTS

Food Value  
760

FOOD CHART No. VII

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## Grain Products and Nuts are Valuable for Energy and Building Material

Chart VI shows the various types of food compared as to food value and cost. This chart shows how some of the cereals and nuts compare with each other per pound. (To compare foods on the basis of cost, divide the value given by the cost per pound.)

Bread and cereals are especially valuable for energy needed by boys and girls who are exercising vigorously. They not only furnish a large amount of energy needed for exercise, but they also supply building material and help to build strong muscles. They should be eaten freely.

Nuts are valuable, too, but they should be combined with other foods and chewed thoroughly. Eat them at meal time in place of meat. Try a peanut butter sandwich with vegetable soup.

(The value represented here is the score value described on Chart VI.)



*Eat vegetables every day to save doctor's bills.*

## Are vegetables and fruits necessary?

Yes, vegetables are one of the three most important foods. Milk, cereals and vegetables may make a complete diet.

## Why are vegetables important?

Vegetables supply bulk which helps to overcome constipation. This is a very important use. They also supply valuable salts and acids which not only help in building bones and tissues but help to keep the body healthy.

## Which vegetables are especially recommended?

The potato is one of the most valuable as well as one of the cheapest vegetables. It is cheap even at five cents a pound. All green vegetables such as spinach, dandelions, string beans, fresh peas, and beans are also valuable for their iron. All vegetables are good. Use carrots, onions, beets, turnips and cabbage freely.

## Why are green vegetables important?

They contain iron. Iron is necessary for good blood. Good blood is necessary for health. It is better to take iron in food than to have to take an iron tonic later.

## Which vegetables are cheapest?

The cost per pound does not always determine relative economy. The food value must be considered. To find out which of two particular vegetables is cheaper, divide the food value as given on the opposite page by the current cost per pound.

Example:

	Score for food value per pound	Cost per pound	Return in food value for each cent spent
Cabbage .....	380	3 cents	127
Onions .....	270	3 "	90

Then with onions and cabbage at practically the same cost per pound, one would get more from the same amount of money in buying the cabbage.

Similarly we may find the relative economy of dried and fresh fruit.






	Score for food value per pound	Cost per pound	Return in food value for every cent
Dates .....	1,200	20 cents	60
Apples (fresh) .....	220	5 "	44

With apples at five cents a pound, dried fruit is more economical. It is well, however, to have some fresh fruit in the diet two or three times a week.





# VEGETABLES and FRUITS

(FOOD VALUE PER POUND)

## VEGETABLES

DRY PEAS, BEANS or LENTILS		Food Value 3260
SPINACH		Food Value 810
FRESH PEAS, BEANS, CORN or STRING BEANS		Food Value 420
PARSNIPS, CABBAGE, POTATOES or CARROTS		Food Value 380
TURNIPS, ONIONS, BEETS or TOMATOES		Food Value 270

## FRUITS

DATES, RAISINS or PRUNES		Food Value 1200
DRIED APPLES		Food Value 955
GRAPES, ORANGES or BANANAS		Food Value 240
OTHER FRESH FRUITS		Food Value 220

FOOD CHART No. VIII

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## Vegetables and Fruits are Necessary for Good Health

It is not necessary to eat as much of these foods as of milk and grain products, but every boy and girl needs some vegetable **at least** once a day. Fruit should be eaten every day if possible.

The amount of building material furnished by fruit and vegetables is a very necessary kind.

Fruit and vegetables make other building material more valuable. They help to build good teeth and strong bones; they keep the blood healthy; they help food to digest, and they help to make muscles stronger. They are **very** important. Do not neglect them.

(The value represented here is the score value described on Chart VI.)



*There is very little danger of eating too much  
of a well-balanced diet.*  
*There is great danger of eating too much of a  
poorly balanced diet.*

**If children have all they want to eat, isn't that enough attention to give to their food?**

No. Every child needs a certain variety and amount of growing material. The diet must be well-balanced in order to insure enough of each one without getting too much of others.

**What is a well-balanced diet?**

A well-balanced diet supplies all the needs of the body in practically the amounts needed for each day's process of living.

**How can we be sure of a well-balanced diet?**

A well-balanced diet may be obtained by observing the following suggestions:

Spend no more for meat than for milk (using at least  $\frac{1}{2}$  a quart of milk for every child under 16 and  $\frac{1}{3}$  of a quart for every adult).

Spend as much or more for vegetables and fruit as for meat. Use plenty of vegetables.

Eat freely of cereals and bread to satisfy the appetite (use the whole grain cereals).

(Sherman)

**Summary:**

- 1—Use all the milk the family needs.
- 2—Use vegetables for at least one meal a day. Use plenty of potatoes and some leaf or green vegetable besides each day. Have some fruit at least five times a week. Dried fruit may be used frequently if preferred, with fresh fruit at least twice a week.
- 3—Reduce the meat expenditure to provide for the milk if necessary.
- 4—Let the children have as much coarse cereal and bread as they want at meal time.
- 5—Fat may be in the form of butter or a butter substitute.
- 6—Avoid too much sweets and jam. They satisfy the appetite before all the growing material needed has been eaten.
- 7—Avoid tea and coffee.

Dollars well spent for food spell HEALTH.

## Food Should Supply What the Child Needs for Growth

Where there is only a small amount of money to be spent for food, it should be spent so as to supply all the needs of the children if possible.

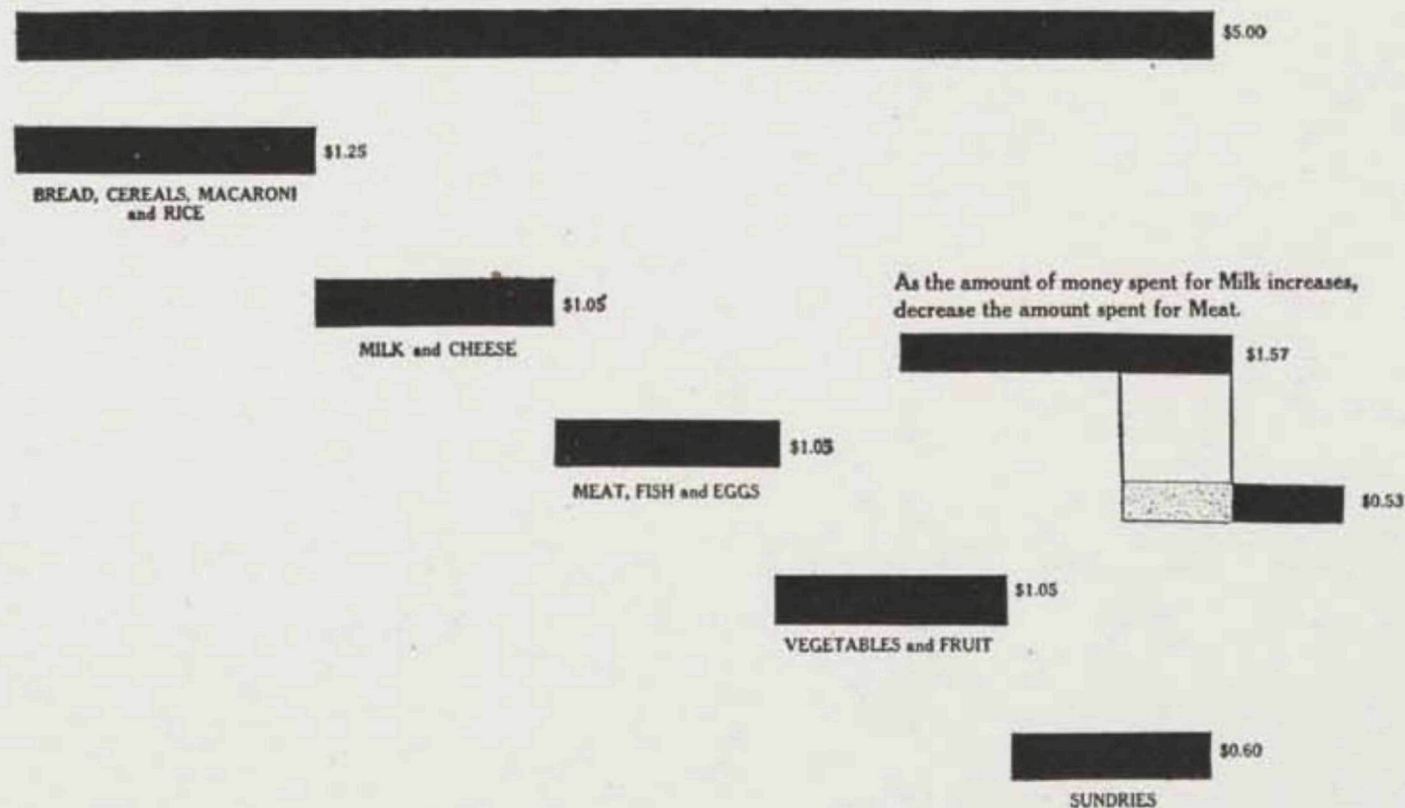
Use plenty of bread, cereal, macaroni and rice to supply sufficient energy (the more the children exercise, the more energy must be furnished by the food). Use plenty of milk and vegetables with the grain products. These are necessary for good health with strong muscles. Use at least a quart of milk for every two or three members of the family and more for small children.

Spend equal amounts for milk, for vegetables and fruit, and for meat, or decrease the amount spent for meat as the amount spent for milk increases. Meat may be decreased with much less harm than any of the other foods mentioned.

# Keep the Children Healthy

## GIVE THEM THE RIGHT KIND OF FOOD

### If You Have Only FIVE DOLLARS to Spend for Food, Spend it Wisely



FOOD CHART No. IX

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# 9 A. I. C. P. Food Charts For Exhibition Purposes

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In order to meet the many demands for food exhibition material, we have reproduced the charts shown in this book, in large size. Hundreds of schools, colleges and libraries have already ordered sets and report splendid results.

These Food Charts are distinctly illustrated and printed on a good grade of cardboard, size 22 x 28 inches. Each chart is punched and tied, for display purposes.

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New York





